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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,401	07/26/2001	Jose Kolncheril Raphel	1763.0140000	4249
24280	7590	10/11/2006	EXAMINER	
CHOATE, HALL & STEWART LLP			STRANGE, AARON N	
TWO INTERNATIONAL PLACE			ART UNIT	
BOSTON, MA 02110			PAPER NUMBER	

2153

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/912,401	Applicant(s) RAPHEL ET AL.	
	Examiner Aaron Strange	Art Unit 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Examiner would like to note that the present Application has been reassigned to a new Examiner.

Response to Arguments

2. Applicant's arguments with respect to claims 34-63 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 34-39,45-54 and 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer (US 6,023,722) in view of Cherkasova et al. (US 6,360,270).
5. With regard to claim 34, Colyer discloses a method for maximizing throughput while avoiding overload of one or more servers, the method comprising the steps of:

transmitting, by an interface unit, client requests to a server to maintain performance of server throughput within a predetermined threshold range (at least Col 6, Lines 25-44);

intercepting, by the interface unit, a request from a client to open a transport later connection with the server (at least Col 6, Lines 25-29);

buffering the intercepted request in a queue (at least Col 6, Lines 25-29); and
transmitting, by the interface unit, the buffered request to the server upon the interface unit determining that the performance of server throughput is within the predetermined threshold range (buffered requests are transmitted when server is not busy) (at least Col 6, Lines 25-44).

Colyer fails to specifically disclose monitoring responses to client requests to determine if the performance of the server exceeds the predetermined threshold range.

Cherkasova discloses a similar system for controlling access to a server. Cherkasova teaches monitoring responses to client requests to determine if the performance of the server is exceeds a threshold range (percentage of aborted requests relates to requests not responded to)(at least Col 4, Lines 7-12). This would have been an advantageous addition to the system disclosed by Colyer since it would have provided a way to monitor the performance of the web servers without querying them or waiting for the servers to tell the queuing unit, reducing the load on the servers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor responses to client requests to determine the performance of the server. This would have provided status information for the servers without increasing the load on the servers by polling them or requiring them to determine their own performance statistics.

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6. With regard to claim 35, Cherkasova further discloses that the predetermined range comprises one of a maximum threshold range or an optimal threshold range for server throughput (sessions are dropped/allowed based on the threshold to maintain an optimal load)(at least Col 5, Lines 51-57).

7. With regard to claim 36, Cherkasova further discloses that the predetermined threshold range comprises a first threshold at a lower point in the predetermined threshold range and a second threshold at a higher point in the predetermined threshold range, the first threshold represents one of a faster response time (at least Col 7, Lines 46-51), a lesser number of users, or a greater number of connections (less refused connections)(at least Col 4, Lines 8-11) that the second threshold (at least Col 5, Lines 51-57).

8. With regard to claim 37, Cherkasova further discloses transmitting, by the interface unit, client requests to the server to maintain performance of a server throughput one of at or near the first threshold (at least Col 5, Lines 51-57).

9. With regard to claim 38, Cherkasova further discloses determining, by the interface unit, the performance of the server throughput based on monitoring one or more of: the number of active connections opened to the server (at least Col 7, Lines 46-51), the response time of the server, the rate at which the response time is changing,

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and the intercepted request (request is monitored to see if it is accepted) (at least Col 4, Lines 7-12).

10. With regard to claim 39, Cherkasova further discloses determining, by the interface unit, the performance of the server throughput based on a first portion of server resources available to service existing clients and a second portion of server resources available to accept new clients (new sessions are rejected once utilization exceeds a threshold, showing that the service level is unsatisfactory)(at least Col 5, Lines 51-57).

11. With regard to claim 45, Cherkasova further discloses determining, by the interface unit, the performance of server throughput by one of a number of requests pending at the server or server error/overload messages from the server (session refusals)(at least Col 4, Lines 7-12).

12. With regard to claim 46, Colyer further discloses establishing, by the interface unit, the transport layer connection with the client in response to request from the client (reply is sent back to client)(at least Col 6, Lines 51-53).

13. With regard to claim 47, Colyer further discloses opening, by the interface unit, a second transport layer connection to the server if there is not a free transport layer

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connection to the server (new session is established when server becomes ready)(at least Col 6, Lines 25-44).

14. With regard to claim 48, Colyer further discloses opening, by the interface unit, a second transport layer connection to the server if the queue comprises one or more requests from a second client (sessions are created for each client once a server becomes ready)(at least Col 6, Lines 25-44).

15. Claims 49-54 and 60-63 are rejected under the same rationale as claims 34-39 and 45-48, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

16. Claims 40,41,55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer (US 6,023,722) in view of Cherkasova et al. (US 6,360,270) in further view of Phaal (US 6,006,269).

17. With regard to claim 40, while the system disclosed by Colyer and Cherkasova shows substantial features of the claimed invention (discussed above), it fails to specifically disclose identifying a preferred client value for the request of the client, and determining the position of the client request in the queue based on the preferred client value.

Phaal teaches identifying a preferred client value (priority status) for the request of a client, and determining the position of the client request in the queue based on the preferred client value (priority status requests are handled before any other requests)(at least Col 8, Line 66 to Col 9, Line 50). This would have been an advantageous addition to the system disclosed by Colyer and Cherkasova since it would have allowed different client requests to be prioritized, ensuring that all requests are handled in a timely manner.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to identify a preferred client value and determine the position of the client request in the queue based on the preferred client value in order to prioritize previously deferred requests and ensure that they are handled in a timely manner.

18. With regard to claim 41, Phaал further discloses determining, by the interface unit, the preferred client value, from one or more of the internet address of the client request, the port number of the client request, by a header related to the client request, by previous requests from the client of the client request, and by a cookie related to the client request (cookie) (at least Col 10, Lines 3-21).

19. Claims 55 and 56 are rejected under the same rationale as claims 40 and 41, since they recite substantially identical subject matter. Any differences between the

claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

20. Claims 42-44 and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer (US 6,023,722) in view of Cherkasova et al. (US 6,360,270) in further view of Shabtay et a. (US 2002/0120743).

21. With regard to claims 42 and 43, while the system disclosed by Colyer and Cherkasova shows substantial features of the claimed invention (discussed above), it fails to specifically disclose pooling a plurality of transport layer connections or multiplexing client requests via the pooled connections.

Shabtay teaches pooling connections and multiplexing client requests via the pooled connections (at least ¶47). This would have been an advantageous addition to the system disclosed by Colyer and Cherkasova since it would have reduced the load on the server in handling transport layer connections (at least ¶10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to pool connections and multiplex client requests over the pooled connections since it would have reduced the load on the server.

22. With regard to claim 44, Shabtay further discloses closing, by the interface unit, transport layer connections to the server to bring performance of server throughput within the predetermined threshold range (at least ¶34).

23. Claims 57-59 are rejected under the same rationale as claims 42-44, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

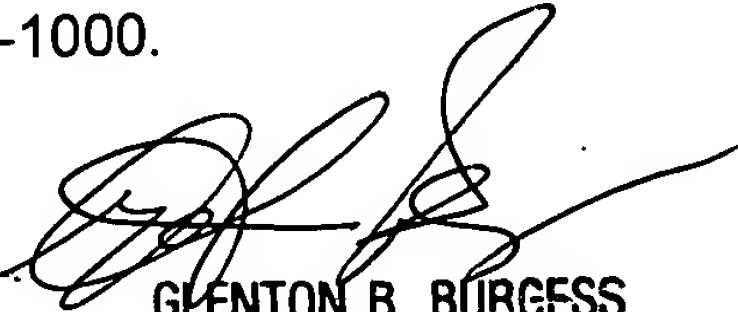
Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS 9/29/06


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